

AMENDMENTS TO THE SPECIFICATION

1. Please replace paragraph [001] with the following amended paragraph:

[001] The present application is a Continuation-in-Part Application of United States Patent Application No. 10/285,082, filed on October 31, 2002 and entitled "A System and Method of Processing a Data Signal," which is currently pending, and United States Patent Application No. 10/285,081, filed on October 31, 2002 and entitled "A System and Method of Detecting a Bit Processing Error," which is currently pending, both of which are also hereby incorporated by reference in their entireties. The present application also claims priority to and the benefit of United States Provisional Patent Application No. 60/423,968, filed on November 5, 2002 and entitled "A System and Method of Measuring a Signal Propagation Delay," United States Provisional Patent Application No. 60/422,598, filed on October 31, 2002 and entitled "A System and Method of Measuring Turn-On and Turn-Off Times of an Optoelectronic Device," and United States Provisional Patent Application No. 60/423,959 filed on November 5, 2002 and entitled "A System and Method of Testing a Transceiver," all of which are hereby incorporated by reference in their entireties.

2. Please replace paragraph [002] with the following amended paragraph:

[002] The present invention relates generally to an improvement in the ability of test systems to test bit processing capacities of optoelectronic transceivers, and in particular an improvement in their ability to test the jitter tolerance and signal attenuation tolerance (sensitivity) of an optoelectronic transceiver.

3. Please replace paragraph [043] with the following amended paragraph:

[043] The attenuator 190 is an optical variable attenuator, such as an ~~EXFO~~ EXFO® Optical Test System IQ-203, although other attenuators are possible. The EXFO® mark is a registered mark of EXFO INGENIERIE ELECTRO-OPTIQUE INC. CORPORATION CANADA for use in connection with fiberoptic test equipment. The attenuator 190, which includes a switchable optical power meter, ensures that the optical signal received by DUT 170 from master device 180 is at a specified power level. To do so, attenuator 190 can increase or decrease the power level of the signal received from master device 180.

4. Please replace paragraph [012] with the following amended paragraph:

[012] In the past, measuring power attenuation and jitter for a particular device, such as an optoelectronic transceiver, was a costly operation. For example, an Agilent® Digital Communication Analyzer (Serial BERT 3.6 Gb/s Bit Error Ratio ~~Tester~~ Tester) which currently retails for more than ninety thousand dollars was required to take such measurements with precision comparable to that of the present invention. The AGILENT® mark is a registered mark of AGILENT TECHNOLOGIES, INC. CORPORATION DELAWARE for use in connection with optical equipment and components.

5. Please replace paragraph [032] with the following amended paragraph:

[032] The controller 120 includes a computer processor on a microchip such as, but not limited to, a Motorola® 8-bit processor or other chip combining an 8-bit architecture with an array of field-programmable logic. The MOTOROLA® mark is a registered mark of Motorola, Inc. CORPORATION DELAWARE for use in connection with processors. The controller 120 directs the operation of circuitry on circuit board 2 (not all connections illustrated) and stores and manipulates data provided by this circuitry. Controller 120 completes these tasks, under the direction of computer 160. In some embodiments of the present invention, controller 120 may not have the capacity to perform measurements, which are described below, without computer 160.

6. Please replace the Abstract of the Disclosure with the following amended Abstract of the Disclosure:

A system and method for testing the jitter tolerance and signal attenuation tolerance of an optoelectronic device is disclosed. The system includes a generation circuit, delay circuit and comparison circuitry. A first sequence of bits is generated, delayed, and sent to the optoelectronic device. The optoelectronic device receives the bits and retransmits them as a second sequence to the comparison circuitry, which compares the two bit sequences to determine a bit error rate. The bit error rate is then used to determine the jitter tolerance and, in an alternate embodiment, the signal attenuation tolerance of the optoelectronic device being tested.

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